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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,126	08/18/2003	Richard Humpert	64913.010700	3488

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EXAMINER

FERGUSON, MICHAEL P

ART UNIT PAPER NUMBER

3679

DATE MAILED: 04/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/643,126

Applicant(s)

HUMPERT ET AL.

Examiner

Michael P. Ferguson

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 48-53 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 48-53 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/418,875.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 01/03/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Objections

2. Claim 53 is objected to because of the following informalities:

Claim 53 (line 3) recites "between said functional element being". It should recite between said functional element and said sheet metal material, said functional element being--.

For the purpose of examining the application, it is assumed that appropriate correction has been made.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 48-53 are rejected under 35 U.S.C. 102(b) as being anticipated by Tinnerman (US 2,342,170).

As to claim 48, Tinnerman discloses a functional element **10,40** capable of being attached to sheet metal material in a liquid and gas-tight manner comprising:

an undercut defining a thread **13,43** with a turn having features **15,45** interrupting the thread and the sheet metal material deformable radially inwardly of the thread thereby forming the liquid and gas-tight attachment between the functional element and the sheet metal material (Figures 3 and 7).

As to claim 49, Tinnerman discloses a functional element **10,40** wherein the thread **13,43** is disposed upon a pin defined by the functional element (Figures 3 and 7).

As to claim 50, Tinnerman discloses a functional element **10,40** wherein the pin defines a generally constant outer diameter (Figures 3 and 7).

As to claim 51, Tinnerman discloses a functional element **10** wherein the features **15** define a groove disposed crosswise through the thread **13** thereby providing anti-rotational properties to the undercut (Figure 3).

As to claim 52, Tinnerman discloses a functional element **40** wherein the features **45** define a rib disposed crosswise through the thread **43** thereby providing anti-rotational properties to the undercut (Figure 7).

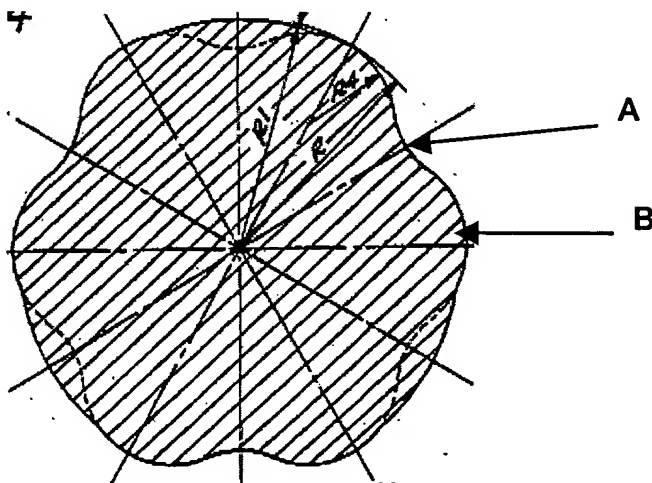
As to claim 53, Tinnerman discloses a functional element **10,40** capable of being attached to sheet metal material and comprising an undercut defined by a thread **13,43**, the sheet metal material being deformed in use radially inwardly of the thread thereby forming the attachment between the functional element and the sheet metal material, the functional element being a threaded pin having a substantially constant outer diameter and being adapted for connection to the sheet metal material in the region of a

portion of the thread defining the undercut, the functional element having features **15,45** at the portion providing security against rotation and arranged eccentrically relative to a longitudinal axis of the functional element, the features providing security against rotation being one of recesses **15** and raised portions **45** engaging the sheet metal material and interrupting the thread (Figures 3 and 7).

5. Claims 48-53 are rejected under 35 U.S.C. 102(b) as being anticipated by Shirai (US 4,818,165).

As to claim 48, Shirai discloses a functional element **20** capable of being attached to sheet metal material in a liquid and gas-tight manner comprising:

an undercut defining a thread **27** with a turn having features **A,B** (Figure 4 reprinted below with annotations) interrupting the thread and the sheet metal material deformable radially inwardly of the thread thereby forming the liquid and gas-tight attachment between the functional element and the sheet metal material (Figure 1).



As to claim 49, Shirai discloses a functional element **20** wherein the thread **27** is disposed upon a pin defined by the functional element (Figure 1).

As to claim 50, Shirai discloses a functional element **20** wherein the pin defines a generally constant outer diameter (Figure 1).

As to claim 51, Shirai discloses a functional element **20** wherein the features **A** define a groove disposed crosswise through the thread **27** thereby providing anti-rotational properties to the undercut (Figure 1).

As to claim 52, Shirai discloses a functional element wherein the features define a rib **B** disposed crosswise through the thread thereby providing anti-rotational properties to the undercut.

As to claim 53, Shirai discloses a functional element **20** capable of being attached to sheet metal material and comprising an undercut defined by a thread **27**, the sheet metal material being deformed in use radially inwardly of the thread thereby forming the attachment between the functional element and the sheet metal material, the functional element being a threaded pin having a substantially constant outer diameter and being adapted for connection to the sheet metal material in the region of a portion of the thread defining the undercut, the functional element having features **A,B** at the portion providing security against rotation and arranged eccentrically relative to a longitudinal axis of the functional element, the features providing security against rotation being one of recesses **A** and raised portions **B** engaging the sheet metal material and interrupting the thread (Figure 1).

Conclusion

The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure. The following patents show the state of the art with respect to functional elements:

Buchanan et al. (US 4,900,210) and Medal (US 5,697,744) are cited for pertaining to functional elements comprising a threaded pin having grooves.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Ferguson whose telephone number is (571)272-7081. The examiner can normally be reached on M-F (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571)272-7087. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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